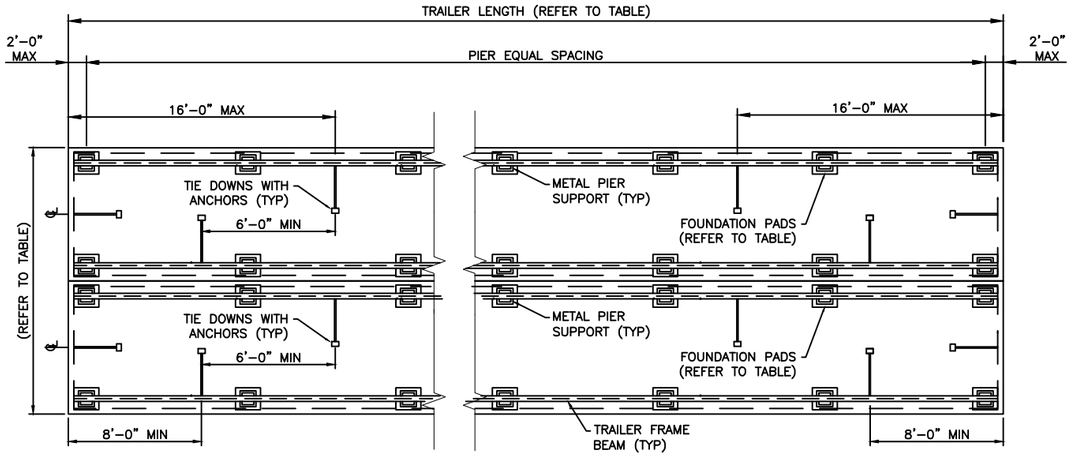
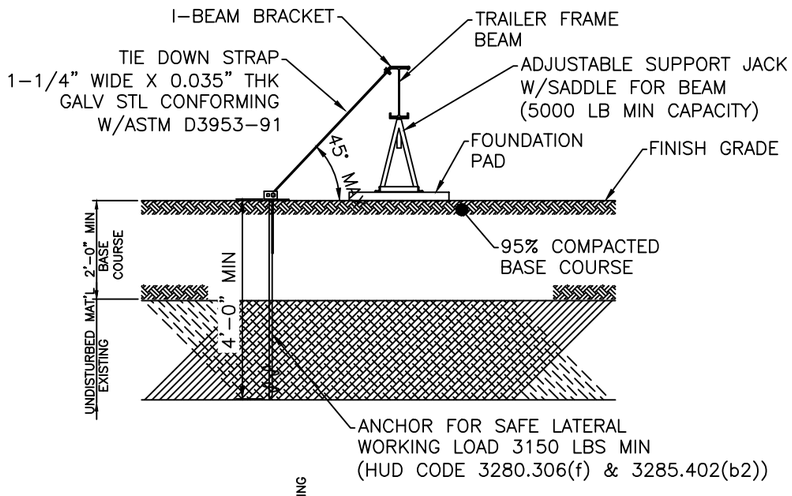
## TEMPORARY TRAILER REQUIREMENTS FOR IN–SITU SOIL OR WELDED TUFF

| Trailer Size | Total Anchors | No. Anchors Along Long Side | No. Anchors Along Short End | Pad Size ft² | Bearing Capacity 1500 psf | | Bearing Capacity 3000 psf | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Total No. of Piers | No. Piers Per Side | Total No. of Piers | No. Piers Per Side |
| 20x50 | 12 | 4 | 2 | 2 | 40 | 10 | 20 | 5 |
| | | | | 2.5 | 32 | 8 | 16 | 4 |
| | | | | 3 | 28 | 7 | 16 | 4 |
| | | | | 4 | 20 | 5 | 12 | 3 |
| 20x60 | 14 | 5 | 2 | 2 | 48 | 12 | 24 | 6 |
| | | | | 2.5 | 40 | 10 | 20 | 5 |
| | | | | 3 | 32 | 8 | 16 | 4 |
| | | | | 4 | 24 | 6 | 12 | 3 |
| 24x50 | 12 | 4 | 2 | 2 | 48 | 12 | 24 | 6 |
| | | | | 2.5 | 40 | 10 | 20 | 5 |
| | | | | 3 | 32 | 8 | 16 | 4 |
| | | | | 4 | 24 | 6 | 12 | 3 |
| 24x60 | 14 | 5 | 2 | 2 | 56 | 14 | 28 | 7 |
| | | | | 2.5 | 44 | 11 | 24 | 6 |
| | | | | 3 | 36 | 9 | 20 | 5 |
| | | | | 4 | 28 | 7 | 16 | 4 |
| 28x50 | 12 | 4 | 2 | 2 | 56 | 14 | 28 | 7 |
| | | | | 2.5 | 44 | 11 | 24 | 6 |
| | | | | 3 | 36 | 9 | 20 | 5 |
| | | | | 4 | 28 | 7 | 16 | 4 |
| 28x60 | 14 | 5 | 2 | 2 | 64 | 16 | 32 | 8 |
| | | | | 2.5 | 52 | 13 | 28 | 7 |
| | | | | 3 | 44 | 11 | 24 | 6 |
| | | | | 4 | 32 | 8 | 16 | 4 |
| 32x50 | 12 | 4 | 2 | 2 | 60 | 15 | 32 | 8 |
| | | | | 2.5 | 48 | 12 | 24 | 6 |
| | | | | 3 | 40 | 10 | 20 | 5 |
| | | | | 4 | 32 | 8 | 16 | 4 |
| 32x60 | 14 | 5 | 2 | 2 | 72 | 18 | 36 | 9 |
| | | | | 2.5 | 60 | 15 | 32 | 8 |
| | | | | 3 | 48 | 12 | 24 | 6 |
| | | | | 4 | 36 | 9 | 20 | 5 |

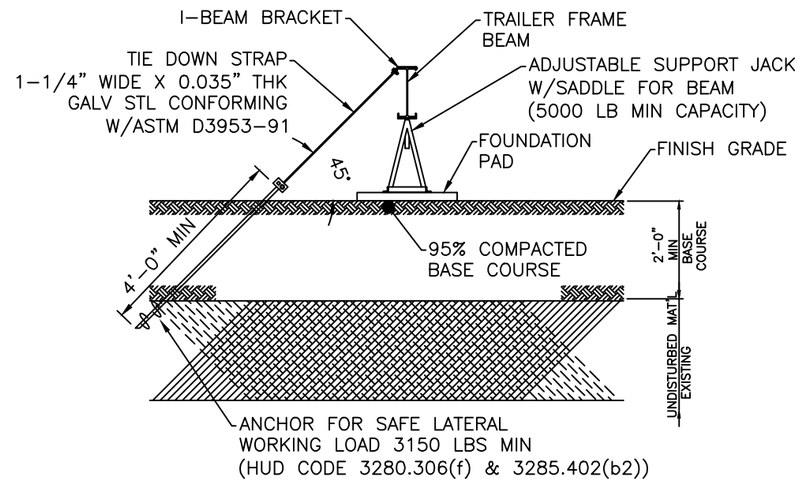



FOUNDATION PLAN

DRAWING DEVELOPED FOR ML–4 INSTALLATION




DN SHT# VERTICAL ANCHOR OPTION




DN SHT# IN–LINE ANCHOR OPTION

## GENERAL NOTES

### DESIGN CRITERIA:

THIS DRAWING DEPICTS A PIER AND GROUND ANCHOR SUPPORT SYSTEM FOR DOUBLE WIDE MANUFACTURED TEMPORARY OFFICE BUILDING UNITS THAT WILL BE INSTALLED AT LOS ALAMOS NATIONAL LABORATORY. PIERS ARE PYRAMID SHAPED OPEN STEEL FRAMES SUPPORTED IN ELASTOMERIC BEARING PADS.

1. PIER AND GROUND ANCHOR LOCATIONS AND SPACING ARE BASED ON GUIDELINES DEVELOPED BY THE MANUFACTURED HOUSING RESEARCH ALLIANCE.
2. TIE DOWN ENGINEERING (WWW.TIEDOWN.COM) OR APPROVED EQUAL GROUND ANCHORS MAY BE VERTICAL OR IN–LINE ANCHORS AND MUST BE CAPABLE OF PROVIDING A SAFE LATERAL WORKING LOAD OF 3150 LBS AT EACH ANCHOR LOCATION. ANCHOR STRAPPING MUST COMPLY WITH THE HUD CODE AS REFERENCED IN PART 3280 OF THE MANUF–ACTURED HOME CONSTRUCTION AND SAFETY STANDARDS AND PART 3285 OF THE INSTALLATION STANDARDS. GROUND ANCHOR HOLDING CAPACITIES MUST BE JUSTIFIED WITH CERTIFYING DOCUMENTATION FROM THE MANUF–ACTURER. DESIGN ANCHORS FOR SOIL OR WELDED TUFF AS SITE DICTATES.
3. THE ALLOWABLE SOIL BEARING CAPACITY MUST BE DETERMINED FOR EACH INDIVIDUAL SITE. THE PIER AND PAD SPACING REQUIREMENTS TABULATED ON THIS DRAWING ARE FOR 1500 PSF AND 3000 PSF BEARING CAP–ACITIES. ASSUME 1500 PSF SOIL BEARING PRESSURE UNLESS SITE SPECIFIC GEOTECHNICAL INVESTIGATIONS INDICATE OTHERWISE. MANUFACT–URED TEMPORARY OFFICE SHALL BE PLACED ON A MINIMUM OF TWO FEET OF BASE COURSE MATERIAL COMPACTED TO 95% OF MAXIMUM DENSITY.
4. ANCHORS MUST BE SEPARATED BY A MINIMUM OF 6'–0" IN ANY DIRECTION.
5. THE EAST END OF TA–54 AND TA–53 ARE LOCATIONS WHERE TOPO–GRAPHIC EFFECTS MAY CAUSE A INCREASE IN WIND SPEED. FOR TRAILERS LOCATED IN THESE AREAS, CONTACT ES–DE FOR FURTHER ANALYSIS.

### CONSTRUCTION CRITERIA:

1. FINISH GRADE UNDER PADS MUST BE LEVELED AND EVENLY COMPACTED. MAXIMUM PAD DEFLECTION SHALL BE 1/8".
2. PLACE ELASTOMERIC PAD WITH GRID SIDE UP AND SMOOTH SIDE DOWN.
3. CENTER STEEL PIER SUPPORT ON ELASTOMERIC PAD AND ENSURE THAT TIE STRAPS ARE TIGHT.

### NOTES FOR FIELD

(DO NOT INCLUDE ON CONSTRUCTION DRAWINGS)

1. PROVIDE PIER SPACING.
2. APPLICABLE TO DOUBLE WIDE TEMPORARY TRAILER, STANDARDIZED ANCHORAGES ARE SUFFICIENT FOR WIND LOAD ALONE, AND SEISMIC DOES NOT CONTROL THE LOADING.
3. CONSTRUCTION OF THE TRAILER ASSUMED TO BE OF LIGHT FRAMED WALLS WITH SHEAR PANELS OF OTHER MATERIALS.
4. TRAILER MUST BE DESIGNED TO MEET LANL REQUIREMENTS:
   - 97 UBC, OR LATER CODE (EXISTING TRAILER)
   - 2009 IBC PROVISIONS (NEW TRAILER)
   - FLOOR LIVE LOAD 50 PSF
   - WIND, EXPOSURE C AND 90 MPH
5. SUBMIT INFORMATION ON ANCHORAGE CAPACITY AND INSTALLATION FOR APPROVAL PRIOR TO CONSTRUCTION.

| NO | DATE | CLASS REV | ADC | DESCRIPTION | DWN | DSGN | CHKD | SUB | APP |
|---|---|---|---|---|---|---|---|---|---|

ENGINEERING STANDARDS PROGRAM

FOUNDATION SUPPORT SYSTEM FOR TEMPORARY TRAILERS

DOUBLE WIDE TRAILER REQUIREMENTS FOR IN–SITU SOIL FOUNDATION PLAN AND ANCHOR DETAILS

BLDG TA–

| | |
|---|---|
| DRAWN | R. G. MARTINEZ |
| DESIGN | A. F. MOSIMANN |
| CHECKED | K. SOUZA |
| DATE | 3–7–12 |

SUBMITTED: DOUG VOLKMAN

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SHEET 1 OF 1

CLASSIFICATION: UNCLASSIFIED | REVIEWER: TOBIN ORUCH | DATE: 3–7–12

PROJECT ID | DRAWING NO ST–Z1052–2 | REV 0

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